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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/067,904	02/08/2002	Mineo Shimotsusa	03500.016184.	8022

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EXAMINER

MANDALA, VICTOR A

ART UNIT PAPER NUMBER

2826

DATE MAILED: 01/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/067,904

Applicant(s)

SHIMOTSUSA, MINEO

Examiner

Victor A Mandala Jr.

Art Unit

2826

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) 8-10, 12-14, 24-26, 28-30 and 39-44 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-7, 11, 15, 16, 37 and 38 is/are allowed.
- 6) ☒ Claim(s) 17-20 and 22 is/are rejected.
- 7) ☒ Claim(s) 21, 23, 27, & 31-36 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. The Applicant argues that the prior art, Japanese Patent No. 11-031816 Taizo et al., used in the Office Action filed on 8/01/03 does not teach the switching circuit electrically connected to the driving circuit on the same substrate. The examiner has considered the Applicant's arguments and finds them to be persuasive. Claims 1-7, 11, 15-23, 27, & 31-38 will be further examined.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 17-20 and 22 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S.

Patent Application Publication 2001/0023965 Ikeda et al.

2. Referring to claim 17, a semiconductor device in which a switching element, (Figure 4 & 29 #Qd2), for allowing a current to flow to a load, (Figure 4 & 29 #Qp2), and a circuit for driving, (Figure 4 & 29 #Qt1), said switching element, (Figure 4 & 29 #Qd2), are formed on a common substrate, (Figure 4 & 29 #1), wherein: said switching element is formed of a DMOS transistor, (Figure 4 & 29 #Qd2); and said circuit for driving said switching element includes an MOS transistor, (Figure 4 & 29 #Qt1), having a characteristic different from that of said DMOS transistor, (Figure 4 & 29 #Qd2).

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3. Referring to claim 18, a semiconductor device, wherein said MOS transistor, (Figure 4 & 29 #Qt1), is of the same conductive type, (Figure 29 #7 and 12), as that of said DMOS transistor, (Figure 4 & 29 #Qd2).

4. Referring to claim 19, a semiconductor device, wherein a drain region, (Figure 29 #7b), of said MOS transistor, (Figure 4 & 29 #Qt1), includes a low impurity concentration region, (Figure 29 #12a).

5. Referring to claim 20, a semiconductor device, wherein said MOS transistor, (Figure 4 & 29 #Qt1), constitutes a level shift circuit that generates a drive voltage applied to a gate electrode of said DMOS transistor, (Figure 4 & 29 #Qd2), and a low impurity concentration region, (Figure 29 #7b), is disposed within the drain region, (Figure 29 #12a), of said MOS transistor, (Figure 4 & 29 #Qt1).

6. Referring to claim 22, a semiconductor device, wherein a well potential, (Figure 29 #2p), of said MOS transistor, (Figure 4 & 29 #Qt1), is different from both a source potential, (Figure 29 #12b), and a drain potential, (Figure 29 #7b).

Allowable Subject Matter

7. Claims 21, 23, 27, and 31-36 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

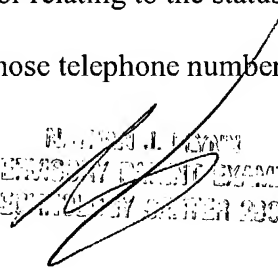
8. Claims 1-7, 11, 15-16, and 37-38 are allowed.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Victor A Mandala Jr. whose telephone number is (703) 308-6560. The examiner can normally be reached on Monday through Thursday from 8am till 6pm..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan Flynn can be reached on (703) 308-6601. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9318.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.


VICTOR A. MANDALA JR.
EXAMINER
TELEPHONE NUMBER 2000

VAMJ
1/22/04